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PHILOSOPHY OF USDA ON FEDERAL GRANTS TO AGRICULTURAL  
EXPERIMENT STATIONS

AUG 16 1964

Talk by Dr. B. T. Shaw, Administrator, Agricultural Research Service, U. S. Department of Agriculture, before the Annual Meeting of Experiment Station Section, American Association of Land-Grant Colleges and State Universities, Wash., D. C., November 15, 1960.

I am glad to participate in this panel discussion on the value of Federal grants in agricultural research.

It's certainly not by accident that this country leads the world in agriculture. I am convinced that our cooperative research structure is largely responsible.

This structure consists of a dispersed system of independent State Experiment Stations strongly supported by the States, a strongly supported program of Federal grants to the States, and a strong in-house research effort within the Department of Agriculture. I don't believe the Federal grants to the State experiment stations would mean as much as they do, without the support of these companion research efforts on the part of the States and the Federal Government.

Federal-grant support has been an important part of our total research effort for about three-quarters of a century. This type of support had its origin in the Hatch Act of 1887, making it, to the best of my knowledge, the oldest Federal-grant program in the Government. In 1955, Congress consolidated the Hatch Act and supplemental laws into one statute, which now serves as the authority for all Federal-grant payments to State experiment stations.

The legislation for Federal grants in agricultural research is unique in many respects. It is especially unique when we compare it with the research fund-granting authority vested in other Government agencies, notably those represented on this panel today.

Let me enlarge on some of the features of this legislation.

To begin with, the Hatch Act provided for the establishment and Federal-grant support of an agricultural experiment station in each State and Territory. Thus, at an early stage, agriculture was assured of a geographically dispersed national research structure. We are convinced that time has confirmed the wisdom of this provision.

These State institutions -- strongly supported by State funds supplemented by Federal grants -- insure a sustained broad base for agricultural science and scientists.

Another feature of the Federal grants is the high degree of initiative the States have in determining the nature and extent of the research. The Department's role in administering the Federal grants is mostly one of service. We see to it that certain legal requirements are met, and assist in reviewing and coordinating grant-supported projects.



Let me explain to you why I believe so strongly in our research setup.

It has been said by others and I'm sure you all agree that any publicly-supported scientific endeavor should have three essential concerns:

First, you need to accumulate the scientific knowledge to get your job done.

Second, you need to provide opportunities for scientists to grow and become more valuable to the Nation.

And third, the research and training institutions must be encouraged to develop scientific strength and ability to serve.

The program that the Nation has developed for Federal grants to State agricultural experiment stations, meets this third point better than any other we know. Our principle hasn't been merely to seek research talent and support it, but to establish and strengthen centers for agricultural research to nurture talent.

For many reasons -- historical and others -- most Federal grant programs support talent where it exists. This is all to the good. To spot a talented man and give him encouragement is fine. To support an agency mission is fine. But these concepts -- important as they are -- could lead to distortions at the universities where the research is done.

Through contracts and grants, Federal agencies are using up just about all available scientific personnel in most public and private research institutions. Thus, to a large extent, these institutions become arms of the donor agencies. And, quite naturally, the scientists, teaching staffs, and students are directed more and more into the fields that are assured continued financial support, such as atomic energy, space, medicine, and agriculture.

The students in these schools tend to be trained less broadly than is desirable to maintain our Nation's overall scientific competence. And fewer good students are attracted into the disciplines that are currently less glamorous.

Even more serious, though, is the possibility that research in these currently unglamorous areas will dwindle to insignificance. This could place us in real trouble should these areas achieve prominence in the years ahead. We would have no solid foundations on which to build a national effort.

The fact that we haven't created more distortion than we have in universities, is a tribute to the operations of mission-directed agencies.



I believe the Nation would benefit if we were to adopt a nationally dispersed research structure in all scientific areas. We need more centers of excellence in all parts of the country. These could be fostered through appropriate Federal grants, much as it has been done for agricultural research.

There are good reasons for doing this.

First, research is an invigorating force in a geographical area.

And second, strong competing intellectual centers are good for the country as a whole.

We need the vigor and cross-pollination of ideas that come from pursuing research at many separate institutions. Research in some of the large universities has grown so much that they resemble large research institutes. Our Nation cannot afford to concentrate its best teachers, investigators, and students into a few gigantic research-teaching centers.

Now, as to the future.

I believe that all Federal agencies conducting research should be able to utilize both institutional grants and grants to support talent where it exists.

In moving to this type of program, however, it's well to remember one point:

The strongest support for research goes to the organization that supports talent where it exists. This is because the talent exerts considerable pressure on those who make money available for the organization's overall program. With institutional grants, however, support comes only from the institution itself.

That's why a research organization needs both types of grants.

Again, in looking to the future, I believe we should make more of an effort to see our research problems in broad perspective, and work out solutions on many fronts at once.

And, finally, we should embark on a purposeful policy of encouraging the growth of new centers of excellence throughout the country. All research institutions -- large and small -- must be developed to the hilt.

If the past few years of scientific development have taught us anything, it might well be the truth of the old saying that " . . . a chain is as strong as its weakest link." We want to be sure that our resources are strong and vital at all points to meet the growing demands upon us.



